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ABSTRACT

This publication, a pamphlet included in the B'nai B'rith Occupational Brief Series, directs its attention to that profession specifically licensed to care for human vision. The nature of work and the fields of specialization within the profession are described. Personal qualifications, educational and national (governmental) requirements, and opportunities available for financial aid are discussed. Occupational factors, earnings, employment opportunities, advantages and disadvantages are described. Opportunities for women in optometry are improving. Opportunities for minority youth are also presented. A bibliography is included. (EB)

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B'NAI B'RITH OCCUPATIONAL BRIEF SERIES

careers in optometry

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COVER: Optometrist looks into a boy's eye through an opthalmoscope

Photographs courtesy of the American Optometric Association and the Los Angeles College of Optometry

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CAREERS IN OPTOMETRY

By **FRANK M. KITCHELL, O.D.**
Chairman, Committee on Operation Manpower, American Optometric Association

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B'NAI B'RITH VOCATIONAL SERVICE 1640 Rhode Island Ave., N.W., Washington, D. C. 20036

FOREWORD

There are many complex challenges facing youth today. One of the major decisions involves the choice of a career. Vocational choice affects not only one's work adjustment, but a person's entire way of life.

This career brief is part of B'nai B'rith Vocational Service's continuing role of providing up-to-date educational and vocational information for youth. It presents a detailed look at the rapidly advancing field of optometry. Many exciting changes have taken place in this profession since I first received my training. It is a field that holds much promise for bright young men and women of all faiths and backgrounds.

B'nai B'rith has long given top priority to its programs of service to Jewish youth. The B'nai B'rith Vocational Service, through its guidance and information services, is helping our youth in making realistic and satisfying career choices in a changing, technological society. As International President of B'nai B'rith, it is my privilege to join the American Optometric Association in endorsing this career brief with the hope that some of you may be stimulated to give further consideration to optometry as a career of service.

WILLIAM A. WEXLER, O.D.
President, B'nai B'rith

Savannah, Georgia
January 31, 1968

CAREERS IN OPTOMETRY

NEXT TO LIFE ITSELF, one of God's most precious gifts to mankind is sight. The optometrist dedicates himself to the preservation of this gift.

NATURE OF WORK

OPTOMETRY IS A PROFESSION specifically licensed to care for human vision. It is based on scientific knowledge concerning light and vision. *Optometrist* is the professional name of those licensed and engaged in this practice. Optometrists apply their knowledge and skill to provide individuals with clear, efficient and comfortable vision. They utilize special instruments and techniques to determine defects in vision. They may prescribe eyeglasses, contact lenses, corrective eye exercises, low vision aids or visual training. They do not prescribe drugs or perform surgery.

Although the first use of glasses to improve vision dates back to the time of Marco Polo, optometry is a relatively young profession. The American Optometric Association was founded in 1898. In 1910, Columbia University initiated the first optometry curriculum. The first four-year curriculum was developed at Ohio State University in 1914. Despite its comparative "youth," optometry has made a great deal of scientific advancement and has grown quickly in prestige and professional recognition.

Optometrists are not to be confused with others who provide medical eye care, such as opthalmologists, oculists, or eye, nose and throat specialists. They also should not be confused with opticians who grind lenses and fill prescriptions for glasses written by optometrists or physicians. Opticians do not examine eyes or prescribe treatment. Optometrists generally offer a complete

service which includes the eye examination, as well as the dispensing and the fitting of the final prescription.

The professional optometric eye examination consists of more than twenty separate and distinct tests. In addition to an internal and external examination of the eyes for the presence of disease or other abnormalities, the optometrist *(O.D.)*, using several diagnostic instruments, determines the refractive error (nearsighted, farsighted, astigmatism or presbyopia) and the efficiency of the patient's vision.

The optometrist considers vision a dynamic process. In the routine eye examination he conducts numerous tests of eye muscle coordination and balance, as well as field of vision, depth perception and color perception. Pressure within the eye is measured, using a tonometer to detect the presence of glaucoma.

FIELDS OF SPECIALIZATION

SINCE THERE IS a close relationship between vision and the brain, the O.D. may devote a major portion of his practice to developmental vision, utilizing many and varied means, including walking boards, blackboards and special instruments to coordinate the eyes with other body functions. In this way, children, including those with brain damage, can improve their visual skills. Hand-eye coordination can be improved, and the ability to achieve and improve scholastically frequently occurs after vision training.

Many optometrists specialize in the fitting of contact lenses. These lenses are useful not only from the cosmetic aspect, but also are used to protect eyes and to correct keratoconus (front of the eye becomes cone shaped). Sometimes they are even designed to form an artificial pupil or to correct vision after cataract surgery on one eye. Contact lenses were once very heavy and painful to wear. Their use tended to be limited to actors, actresses, models and athletes. Recent improvements have made them smaller and more comfortable. Today, an estimated 4-6 million men, women and children wear contact lenses.

Another field of specialization within optometry is rehabilitation of the partially sighted, utilizing telescopic and microscopic lenses, as well as other special low vision aids. Through the use of these enlarging devices, persons with very poor sight are helped to lead normal lives. In many cases, even those who once were believed to be blind have had useful vision restored.

Some optometrists limit their practice to children (pediatric optometry). Others specialize in visual training (orthoptics). For others, industrial optometry permits the O.D. to direct an eye safety program while analyzing the vision needs for specific jobs and providing corrections to insure maximum visual efficiency at work.

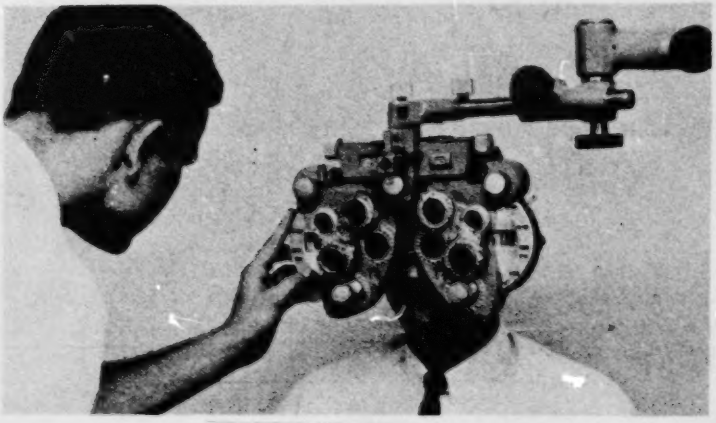
Military optometry offers the new graduate a commission as a

first lieutenant in the Army or Air Force, or lieutenant (j.g.) in the Navy. Our modern weapons and defense systems provide new visual demands and challenges to the officers of the Optometry Corps. In addition, there is the opportunity to pursue graduate study at government expense at leading universities. The new optometrist may also serve as a commissioned officer in the U.S. Public Health Service. Other opportunities exist on a part or full-time basis as vision consultants in schools, airlines, highway departments and other agencies vitally concerned with vision care or visual performance.

Comprehensive health care programs have prompted optometrists to obtain graduate degrees in public health or public administration. These individuals frequently serve as directors or administrators of health centers, rendering vision care to the needy and underprivileged as well as the brain damaged and retarded child.

The space age offers new challenges to the optometrist, as it does other scientists. The research-minded optometrist may find many varied opportunities here. "Space myopia" induced by outer space travel, is one of many new areas attracting researchers. Development of new instrumentation, such as ultrasonics and computerized and electronic eye measuring devices, vision of the brain-injured and underachieving child, visual perception and behavioral patterns in visually handicapped, are among the areas of research. Drivers vision and highway safety and improved methods of detection of glaucoma, amblyopia (weak eye), strabismus (crossed eyes), and retinal studies with the electroretinogram, all open new opportunities and challenges in vision research.

More than 20 tests are conducted in the standard eye examination



Orthoptics training for a young patient in a visual training clinic

LOCATION OF EMPLOYMENT

A NATIONAL SURVEY conducted in 1964 revealed that 65% of the optometrists practiced in four regions of the United States – East North Central, Middle Atlantic, South Atlantic and Pacific. The East South Central area had the smallest number of optometrists.

Seventy-one percent of the O.D.'s are in solo practice. Seven percent were found to be in practice with other optometric practitioners. The trend toward group practice is growing. Fifty-seven percent of optometrists practice in towns of 50,000 or less, while 17% are located in cities over 500,000 population. About 10% of the optometric profession serve in the military, public health service, education or research.

WORKING CONDITIONS

THE PROFESSIONAL OPTOMETRIST generally works under the most desirable conditions in a modern, well-equipped office. Statistical records and insurance figures show optometry to be among the preferred risk occupations. Life expectancy for the professional O.D. is among the highest of any group. Physical demands are not great and self-regulatory hours permit many optometrists to con-

tinue their practice even when they are in their eighties. The optometrist may retire to his home after a day's work without the fear of being called out on emergency night calls.

The office environment is clean and quiet and is adapted to the particular needs of the practitioners. The professional O.D. may have a small lab to adjust contact lenses and special rooms and devices to work with the brain damaged child or the partially sighted. Special equipment is also required for those specializing in visual training and developmental vision.

LICENSURE

A LICENSE IS REQUIRED to practice optometry in all the fifty states and District of Columbia. Prior to licensing, every optometrist must pass both a written and practical State Board examination of the state in which he wishes to practice. Many states accept the National Board examinations in lieu of their own written exams. A few states have reciprocal licensing procedures.

No internship is required except in Rhode Island. Everywhere else in the United States the optometrist may enter practice directly upon receiving his license.

PERSONAL QUALIFICATIONS

IN ORDER TO BE an optometrist one must have an inquiring mind and an interest in science, with the perseverance to secure the education and skills required.

He should possess a strong desire to help others and be adept at handling delicate instruments. Optometry does not require unusual strength or stamina. Many people with partial disabilities have achieved success in optometry.

One should be able to express himself well and converse easily with people of varied backgrounds. Patience and pleasing personality are vital for professional success.

EDUCATIONAL REQUIREMENTS

A COLLEGE PREPARATORY COURSE in high school is suggested, including courses in the basic sciences: physics, chemistry and biology, as well as higher mathematics and English.

Two years of pre-optometry training is required. This may be taken at any accredited college or junior college.

Since admission requirements vary, the prospective O.D. should secure information regarding the prerequisites at the optometry school or schools to which he intends to apply. In general,

requirements include English, math, chemistry, physics, the biological sciences and psychology.

Upon satisfactory completion of your pre-optometry courses, candidates may enter one of ten accredited schools and colleges of optometry in the United States.

UNIVERSITY OF CALIFORNIA, *School of Optometry, Berkeley, Calif.*

UNIVERSITY OF HOUSTON, *College of Optometry, Houston, Tex.*

ILLINOIS COLLEGE OF OPTOMETRY, *Chicago, Ill.*

INDIANA UNIVERSITY, *Division of Optometry, Bloomington, Ind.*

LOS ANGELES COLLEGE OF OPTOMETRY, *Los Angeles, Calif.*

THE MASSACHUSETTS COLLEGE OF OPTOMETRY, *Boston, Mass.*

THE OHIO STATE UNIVERSITY, *College of Optometry, Columbus, Ohio*

PENNSYLVANIA COLLEGE OF OPTOMETRY, *Philadelphia, Pa.*

PACIFIC UNIVERSITY, *College of Optometry, Forest Grove, Ore.*

SOUTHERN COLLEGE OF OPTOMETRY, *Memphis, Tenn.*

Upon completion of two years of pre-optometry and four years of optometry training, students receive the O.D. degree (Doctor of Optometry).

Courses in the four years of professional training include ocular anatomy, physiological optics, ocular pathology, geometric optics, mechanical optics, physiology and practical and theoretical optometry. In addition, the student receives considerable training in clinical aspects of vision care and laboratory procedures.

Many schools offer graduate training in physiological optics for those desiring a Masters or Ph.D. degree. An increasing number of O.D.'s are attending graduate schools for additional training and specialization.

FINANCIAL AID

THE QUALIFIED AND NEEDY STUDENT should have little difficulty in securing funds for his professional training. Nearly all schools of optometry as well as State Optometric Associations provide scholarships and/or loan funds for worthy students.

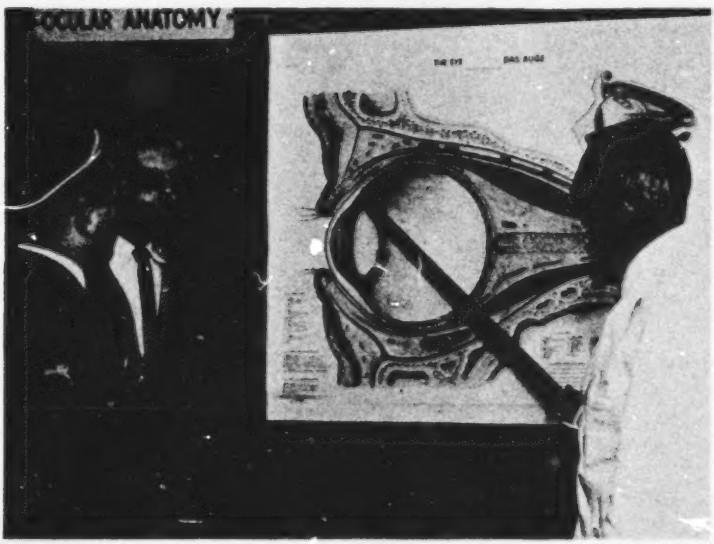
Federal assistance is available to optometry students under Public Law 89-290. The Department of Health, Education and Welfare, through the schools of optometry, provides student loans up to $2500 per year. Scholarships are also available to qualified students under this same law.

The American Optometric Association annually compiles a comprehensive booklet listing scholarships and loan funds offered by state associations, societies and institutions. It is available upon request by writing to the American Optometric Association, 7000 Chippewa Street, St. Louis, Missouri 63119. Additional information on financial aid can be found in a general reference source such as *Scholarships, Fellowships and Loans* by Dr. S. Norman Feingold (Bellman Publishing Company, Cambridge, Mass. 02138). In addition to this volume, the same company issues a quarterly newsletter entitled "Scholarships, Fellowships and Loans News Service" that describes up-to-date new student aid funds as they become available for young people and adults.

Candidates should also be cognizant of the growing number of directories that list funds available for residents of a particular state. An illustration of a helpful guide along these lines is *Scholarships and Other Financial Aids in Minnesota* by Ronald S. Kaiser and Benjamin Lasoff. It is recommended that counselors working with young people also utilize the publication of the American School Counselor Association, *How About College Financing?*

While it would be misleading to say that scholarships are easy to get, the outlook nonetheless is better today than ever before for talented and gifted young people to obtain the help they need for an optometric education.

Optometry students learn about the structure of the eye



EARNINGS

OPTOMETRY COMPARES FAVORABLY to other professions in terms of earnings, based on hours spent in the office. The average net income of optometrists today is in excess of $15,000 a year.

Today, more than ever before, there are opportunities for the new graduate to associate with an established practitioner, thus eliminating the lean years. (A recent survey indicated that the average net annual income for the first three years of practice was $6800, while the average cost of equipment for a new practice was found to be $9200.) In addition, there are openings as officers in the military or U.S. Public Health Service where the expense of equipment is not borne by the optometrist.

ADVANTAGES AND DISADVANTAGES

THE SATISFACTION DERIVED from serving mankind is perhaps the greatest reward offered by the profession of optometry.

Being your own boss permits you to set your own hours and plan vacation time well in advance. You may choose to have your office in your home or a professional building. You may relax at the end of the day, knowing that you will not be called at night for an emergency case. You do not have to fear a forced retirement.

Opportunities to travel and meet colleagues at state and national optometric conventions, educational symposiums and conferences are available to optometrists.

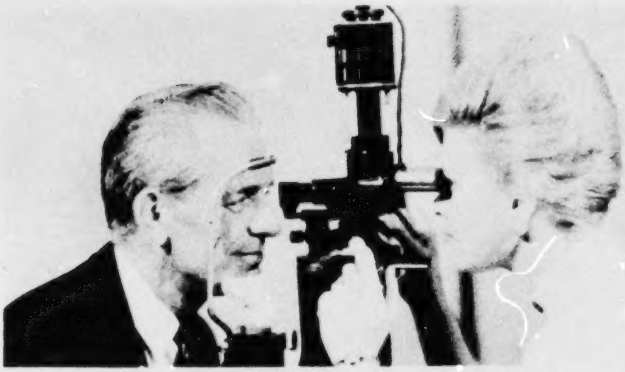
Every career has certain disadvantages. The time, money and study required to obtain optometry training discourages some. Being self-employed may not offer the paid vacations and fringe benefits available to those employed by others. However, the American Optometric Association offers group insurance policies to its members. Recently the Federal Government has made provisions for the self-employed to provide for retirement income.

As professional workers, optometrists are expected, and in some states compelled, to pursue post-graduate education to maintain proficiency and keep abreast of new techniques and advances in the field. For the inquiring mind, optometry offers new challenges each day.

EMPLOYMENT OPPORTUNITIES

NEVER BEFORE in the history of the profession have there been greater opportunities for the new optometrist.

There are presently 22,000 registered optometrists in the United States. A large percentage of these professional workers are 50 years of age or over. The attritional factor, due to death or



Many employment opportunities exist for women in optometry

retirement, will be considerable in the next ten years.

By 1970, it is estimated 13,500 additional optometrists will be needed to meet the very minimal demands.

Optometric services on a full or part-time basis are in demand by schools, industry, health departments, highway and motor vehicle departments, as well as the military, public health and other governmental and private agencies.

There is a critical health manpower shortage that will continue to exist for some time. This is due to the increased demand for services, particularly among the increasing aged and the student populations.

WOMEN IN OPTOMETRY

THE OPPORTUNITY TO PRACTICE in a private office at convenient hours without strenuous exertion makes optometry practicularly appealing to women. With a flexible schedule, it is possible to combine a professional career in optometry with homemaking. One may take a leave of absence to have a family, and yet have a career to return to later in life. Many women have associated with group practice. Others find a military commission as an optometrist to their liking. Whatever her interests, the lady O.D. will find opportunities for a rewarding career in optometry.

OPPORTUNITIES FOR MINORITY YOUTH

A BOOK PUBLISHED in 1964 entitled, *The College and Career Plans of Jewish High School Youth*, details a study conducted by the B'nai B'rith Vocational Service and B'nai B'rith Women. It

indicated that approximately 70% of Jewish youth surveyed hoped to enter professional or technical occupations. The field of optometry offers very favorable employment opportunities for minority group youth. Members of minority groups who enter this field typically encounter no prejudice in their training or employment situations. The nature of the profession is such that skill and service, rather than religion or race, are the determining factors of success. Many hundreds of minority group members are successful O.D.'s.

OUTLOOK

THE OPTOMETRIST is a vital member of the health team. Increased demands for health care have created a health manpower shortage. Maximum utilization of all personnel in the areas for which they are specifically trained is now mandatory. Defective vision is the single largest physical abnormality in the United States, according to the U. S. Public Health Service.

In the future, more optometrists are going to be needed to meet personnel requirements in the helping professions. The public demands and deserves comprehensive health care. Optometrists, as vision specialists, will play an increasingly important role on the health team.

OTHER INFORMATION AND ASSISTANCE

IF YOU ARE CONSIDERING a career in optometry, it is recommended that you obtain additional information by consulting an optometrist in your community or writing to the American Optometric Association, 7000 Chippewa Street, St. Louis, Mo. 63319.

You may also want to seek the assistance of a trained educational and vocational counselor. Counselors are available in schools and community agencies. The B'nai B'rith Vocational Service, for example, has twenty BBVS field offices throughout the country where counselors are prepared to assist you, through counseling and testing, to arrive at a suitable career choice. Counselors help you to explore your abilities, interests, attitudes and goals in an effort to help make your future career as rewarding as possible to you and society.

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